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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/291,387	04/14/1999	CHANG-HOI GU	678-256-(P87	2044

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EXAMINER

CHOW, CHARLES CHIANG

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 03/28/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

5

Office Action Summary

Application No.

09/291,387

Applicant(s)

GUI ET AL.

Examiner

Charles Chow

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935.C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/14/1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**Office Action for
Applicant's Amendment
(February/24/2003)**

1. Regarding applicant's amendment filed 2/24/2003, the final rejection is withdrawn, for the reason that there is no teachings for the transmitting user data on reverse common channel with the reverse dedicated channel released in a mobile communication system (page 3, first paragraph, applicant's amendment). The ground of rejection is changed to replace previous Rikkinen et al. (US 6,031,827) with Tanno et al. (US 6,078,572).

Tanno teaches the access method for mobile stations 1-4 (Fig. 1-6, title, abstract) using reverse channel 10 having access channel 10A, message channel 10B, for transmitting large and small sized message data, via permission from base station [Tanno's claim 1(a)-1(d), claims 2-5, 7, 9, 20, 27, 29] using reverse common channel 10. For small message data size, using reverse access channel 10 A of the reverse common channel 10 for transmitting data message [Tanno's claim 1(c)]. For larger sized message data, using reverse message channel 10B of the reverse common channel 10 [Tanno's claim 1(g)]. Tanno considers the allotted dedicated different spread code for each message channel, for transmitting larger message data, as applicant's reverse dedicated channel released to mobile station (in Tanno's claim 3, claim 27). Tanno considers the access channel is allotted to mobile station for transmitting requested larger message data (in Tanno's claim 29).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the labeling with "Prior Art" in Fig. 1A, Fig. 1B and Fig. 2, as indicated in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should

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be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Oath

3. Regarding applicant's oath filed April 14, 1999, the oath does not include the acknowledgement of the duty to disclose information in accordance with 37 CFR 1.56. A correction is required. See MPEP 602.
- (3) State that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability^s as defined in § 1.56.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al. (US 5,517,507) in view of Tanno et al. (US 6,078,572).

Needham et al. discloses **claim 1**, a method of transmitting use data (user data message 201, 205, front figure, abstract) on a reverse common channel (the data message can be either the reverse or forward dedicated channel, such as the data messages 200 sent from base station to communication units 103 to 109, or may be sourced by a communication unit, col.

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3, lines 46-48). Needham assumes the transmitting device can be the communication unit, and the receiving device could be the base station for the reverse dedicated channel (col. 3, lines 62-65) to provide the acceptable quality service using the notification via the energy-burst response (203 to 207) for the retransmission (title, front figure, abstract, Fig. 1 to Fig. 5-4).

Needham discloses the dividing user data into a plurality of segmented messages for user longer data into N frames, such as, (a) the frames 501 to 509 in col. 6, lines 40-48; (b) the data messages transmitted in multiple contiguous frames in col. 7, lines 49; (c) the transmitting a second data message in a second time window in col. 8, lines 52-55.

Needham discloses the transmitting of the segmented messages of consecutive frames on the (multiple continuously Nth frames, in above) on the reverse common channel (from communication unit to base station).

Needham discloses the determining whether a base station receives each of the segmented messages from (a) the notification of acknowledgement ACK to determining the whether received of each frame, and NACK for the response for retransmission (col. 1, lines 23-30); (b) the energy-burst response for the negative acknowledgement NACK to request for retransmission (col. 5, lines 51-64); (c) the indication of the energy burst for unacceptable quality (col. 8, line 25-29).

Needham does not clearly indicate the designated reverse common channel to the reverse dedicated channel for the transmitting different sized data.

Tanno teaches the access method for mobile stations 1-4 (Fig. 1-12, title, abstract) using reverse channel 10 having access channel 10A, message channel 10B, for transmitting large and small sized message data, via permission from base station [Tanno's claim 1(a)-1(d), claims 2-5, 7, 9, 20, 27, 29] using reverse common channel 10. For small message data size, using reverse access channel 10 A of the reverse common channel 10 for transmitting data message [Tanno's claim 1(c)]. For larger sized message data, using reverse message channel 10B of the reverse common channel 10 [Tanno's claim 1(g)]. Tanno considers the allotted dedicated different spread code for each message channel, for transmitting larger message data, as applicant's reverse dedicated channel released to mobile station (in Tanno's claim 3, claim 27). Tanno considers the access channel is allotted to mobile station for transmitting requested larger message data (in Tanno's claim 29). Tanno provides the techniques for transmitting different sized user message data to decrease the probability of collisions, to improve the throughput speed with efficiency and low delay (col. 2, lines 1-4). It is therefore, obvious to include Tanno's idea for transmitting small, larger data using dedicated allotted message channel 10B and allotted access channel 10A of the common reverse channel 10, to Needham above, such that the system could be improved for efficiently transmitting user larger data messages without delay. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Needham above, and to include Tanno's idea for transmitting larger data using dedicated allotted message channel 10B, and the

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allotted access channel 10A, of the common reverse channel 10, such that the system could be improved for efficiently transmitting user larger data messages without delay.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Needham in view of Tanno, and further in view of Honkasalo et al. (US 5,995,496).

In the above it does not clearly indicate the power controlled channel.

Honkasalo teaches, **claim 2**, the power controlled channel for packet data transfer (title, claim 5, col. 12, line 56-63, the base station transmits the feedback-acknowledgement to adjust/control the transmission power of the terminal, to response the quality of the received data). It is obviously a good feature to include the channel power control for transferring of quality data in the system. By doing so, the data transferring error would be improved due to the controlling of the channel power control to compensate the signal fading in the signal transmission (col. 3, line 1-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and to include Honkasalo's closed loop acknowledgement for controlling the channel power, to Needham as modified above, such that the quality of the data transmission could be improved.

6. Claims 3-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al. in view of Tanno, Honkasalo, and further in view of Ayabe et al. (US 6,108,530).

In the above, it does not clearly indicate the sequence number, and indicating presence or absence of segments.

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Ayabe et al. teaches, **claim 3**, a system for transmitting the divided-fragmented displayable message in between the base station (110-1, 110-3) and short-message entity (104, 105; col. 4, lines 34-47, col. 4, lines 48-60, uplink and downlink) as shown in front figure/abstract. The fragmented-data packages are separately transmitted including a sequence number (reference-parameter indicating corresponding-position of the fragment abstract) to indicate the presence/absence in the succeeding frame (following fragment). The including of the referencing position information in the fragmented messages is such an apparent, essential, accurate, efficient, method of transmitting long-divided fragmented data to avoid the puzzle during re-assembling of the received data-fragments. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and add Ayabe's referencing parameter to indicate the corresponding position of the fragments, to Needham as modified above, such that message could be efficiently transferred.

Regarding **claim 4**, Needham has discloses the receiving of the response from base station indicating reception of each segmented message (col. 8, line 25-30, the receiving of acknowledgement for indicating reception of each frame, and providing the negatively-acknowledgement-energy burst, when received frames are in errors).

Regarding **claim 5**, Needham has disclosed the response message indicating reception of a particular segment (the energy bust response; col. 7, lines 65-67, the retransmitting only the particular messages which are not adequately received); Needham shows the sequence number above (referencing parameter for corresponding-position of the fragments).

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the NACK (col. 5, line 51-64). the retransmit only the particular message not adequately received (col. 7, lines 65-76).

Regarding **claims 6, 7**, refer to examiner's comment in claim 5 above, which also provides the claimed features for this claim for the failed reception (NACK-energy-burst for request for retransmit).

Regarding **claim 8**, Needham has shown above the retransmitting of the particular frames not adequately received.

Regarding **claim 9**, Needham has shown above the whether a response indicating reception of retransmission (col. 5, lines 51-64, the as long as the negatively responded, again, for the retransmission).

Regarding **claim 10**, Needham has shown above the predetermined time period (predetermined time window, in abstract, col. 5, line 32, col. 5, line 60, for the energy-burst responses 203, 206, 207, for the retransmission; the burst-energy response in time-window for each frame, col. 5, lines 29-36).

Regarding **claim 11**, Needham has shown above the response for last Nth frame, and burst-energy response in time-window for each frame (above in claim 10), and including the last frame having the burst-energy immediately after the last frame (col. 6, line 39-45).

Regarding **claim 12**, Needham has shown above the predetermined response time period, the response indicating reception of the last segment.

Regarding **claim 13**, Needham has shown above the retransmitting of the last frame (the last Nth frame); the response for the last segment; the not received (the energy-burst NACK retransmission); the predetermined time period (proper predetermined time window).

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Regarding **claim 14**, Needham has shown above the base station transmitting a succeeding segment message base on the received response (energy-burst for each frame) indicating the reception of the last segment.

7. Claims 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al. in view of Tanno, Honkasalo, and further in view of Ayabe et al.

In the above, it does not clearly indicate the checking a count of the more flag field, although it has shown above the flag field (the referencing position parameter for the fragments in the user data field for the indicating of more frames in the incoming message).

Ayabe teaches **claim 15**, the CRC in for the guarantee of the short message delivery, col. 5, lien 35-37). Ayabe teaches the checking a count of the more flag field (the referencing parameter indicating the total size the message, abstract; and the reference position to indicate the identity in col. 2, line 49) for the more flag field. Besides, Ayabe also teaches the assembling, reconstructing, of the received fragments (in col. 2, lines 51-67), and the marks for reassembly (col. 7, lines 28-29). Ayabe further teaches the inserting of any fragments received which is out of order (col. 9, lines 20-22). Ayabe provides the method for using the referencing-position, the CRC, and the total size-count, which are obviously, essentially, the good techniques for the transmitting/assembling of the fragmented data because the system could easily, efficiently transmits the long fragmented data to avoid the reassembly problem, using the referencing position, CRC, total size count. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify and add Ayabe's total

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size-count, to Needham as modified above, such that the missing fragment could be efficiently located.

Regarding the amended portion for the receiving a message on a designated reverse common channel, referring to examiner's comment in claim 1 above from Tanno for the base station to receive larger message from mobile stations.

Regarding **claim 16**, refer to examiner's comment in claim 2 above, which also provides the claimed features for this clam for the power controlled channel.

Regarding **claim 17**, refer to examiner's comment in claim 4 above, which also provides the claimed features for this clam for the response from either base station or mobile station for sending response to indicate the reception.

Regarding **claim 18**, refer to examiner's comment in claims 3, 4 above, which also provides the claimed features for this clam for the response indicating reception; the sequence referencing position parameter.

Regarding **claim 19**, refer to examiner's comment in claim 8 above, which also provides the claimed features for this clam for the predetermined time period (window) for not receiving (not adequately received, energy-burst NACK-retransmission request).

Regarding **claim 20**, refer to examiner's comment in claim 9 above, which also provides the claimed features for this clam for the mobile station response indicating retransmission (energy-burst, NACK-retransmission).

Regarding **claim 21**, refer to examiner's comment in claim 11 above, which also provides the claimed features for this clam for the response for receiving last message (Needham's col. 6, line 43-45, above).

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Regarding **claim 22**, refer to examiner's comment in claims 1, 5 above, which also provides the claimed features for this claim for the error (unacceptable quality) and the request for retransmission.

Regarding **claim 23**, Ayabe has considered the completed continuously checking as shown above based upon the referencing position parameter, and the total size count parameters. Ayabe also teaches the assembling, reconstructing, of the received fragments (col. 2, lines 51-67); the marks for ready for reassembly (col. 7, lines 28-29); the inserting of any fragments received which is out of order (col. 9, lines 20-22).

***Response to Arguments
And
Conclusion***

8. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's argument for the no teachings for transmitting user data on reverse common channel with the reverse dedicated channel released in a mobile communication system ((page 3, first paragraph, applicant's amendment), the ground of rejection is changed to replace previous Rikkinen et al. (US 6,031,827) with Tanno et al. (US 6,078,572).

Tanno teaches the access method for mobile stations 1-4 (Fig. 1-6, title, abstract) using reverse channel 10 having access channel 10A, message channel 10B, for transmitting large and small sized message data, via permission from base station [Tanno's claim 1(a)-1(d), claims 2-5, 7, 9, 20, 27, 29] using reverse common channel 10. For small message data size, using reverse access channel 10 A of the reverse common channel 10 for transmitting data message [Tanno's claim 1(c)]. For larger sized message data, using reverse message channel

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10B of the reverse common channel 10 [Tanno's claim 1(g)]. Tanno considers the allotted dedicated different spread code for each message channel, for transmitting larger message data, as applicant's reverse dedicated channel released to mobile station (in Tanno's claim 3, claim 27). Tanno considers the access channel is allotted to mobile station for transmitting requested larger message data (in Tanno's claim 29).

In view of the above disclosures, claims 1-23 are remaining in the rejection manner.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter, can be reached at (703)-308-6732.

Any response to this action should be mailed to:

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Washington, D.C. 20231


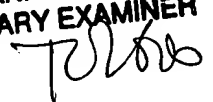
or faxed to: (703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Charles Chow

March 10, 2003.


THANH CONGLE
PRIMARY EXAMINER

3/24/03